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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/760,585	01/16/2001	Wesley A. Brush	1999-0461	4303

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EXAMINER

LAM, DANIEL K

ART UNIT	PAPER NUMBER
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2667

DATE MAILED: 07/23/2004

3

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/760,585

Applicant(s)

BRUSH ET AL.

Examiner

Daniel K Lam

Art Unit

2667

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 January 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 April 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. **Claims 9, 10, 13, 15, and 19** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

There are insufficient antecedent basis in **dependent claims 9, 10, 13, 15 and 19** regarding the following limitations:

- Dependent claims 9 and 10 recite "the connection point " in line 1. However, there is no "connection point" disclosed in claim 7.
- Dependent claim 11 recites "the processor" in lines 2. However, it is not disclosed in claim 7 or 11.
- Dependent claims 13 and 15 recite "the switch" in lines 2 and 1 respectively. However, there are two switches described in claim 12.
- Dependent claim 19 recites "the connections " in line 1. However, there are no "connections" disclosed in claim 12.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless

Art Unit: 2667

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. **Claims 1, 2, 5-11, and 20** are rejected under 35 U.S.C. 102(b) as being anticipated by U. S. Pat. No. 6,728,239 issued to Kung et al (hereinafter Kung).

Regarding **claim 1**, Kung discloses a method in a scalable network server for assigning intelligent peripheral resources, comprising:

- Receiving an off-hook signal 508 from a broadband residential gateway BRG 300 by a call manager server CM 218 (receiving a request for an intelligent peripheral service from a first requesting element). See fig. 5, and col. 25, lines 19-20.
- The call manager server CM 218 detects and recognizes the off-hook signal that acts as a dial tone request (identifying an intelligent peripheral resource in response to the request). See fig. 5, and col. 25, lines 21-22.
- The call manager server CM 218 reserves a dial tone generator by returning dial tone message 509 to the broadband resident gateway BRG 300 (assigning the identified intelligent peripheral resource). See fig. 5, and col. 25, lines 32-36.

Regarding **claim 2**, in addition to disclose the limitations in claim 1 discussed earlier, Kung further discloses the method comprising:

- Gateways support one or more groups of functions including call processing, signaling, billing, maintenance, connection to the network, CoS/QoS parameters selection, and enhanced services (grouping the intelligent peripheral resources into one or more groups). See col. 11, lines 42-46. Furthermore, servers are grouped according to their functions, such as least cost server (LCS) 255, time of day (TOD)

Art Unit: 2667

server 212, system management (SM) server 216, call manager (CM) server 218, announcement server (AS) 220, multimedia server (MS) 222, and conference server (CS) 224, etc. See fig. 2, and col. 6, lines 31-41.

- The call manager server CM 218 issues a local number portability query 511 to the database 122 indicating a re-routing if the local resources are not sufficient to handle the call (forwarding the request from a first group to a second group if intelligent peripheral resources of the first group that received the request is not sufficient to meet the request). See fig. 5, and col. 25, lines 57-61.

Regarding **claims 5 and 6**, in addition to disclose the limitations in claim 1 discussed earlier, Kung further discloses the request is received from a packet-based (as in claim 5) media stream (see fig. 2, Internet 180 and Internet gateway 236), or the request is received from a circuit-switched (as in claim 6) based media stream (also see fig. 2, PSTN 160 and voice gateway 232).

Regarding **claim 7**, Kung further discloses IP Central Station connecting intelligent peripherals to a network, comprising:

- An interface (at least one intelligent peripheral interface) between central router 210 (at least one routing device) and call manager server 218. The central router 210 routes information between networks and servers. See fig. 2, and col. 6, lines 28-30.
- The voice gateway 232 connects to PSTN 160 (at least one network interface). See fig. 2, and col. 6, line 57.

Regarding **claims 8-11**, in addition to disclose the limitations in claim 7 discussed earlier, Kung further discloses:

Art Unit: 2667

- A system management server 216 (at least one processor for processing information as in **claim 8**). See fig. 2. The IP central station stores various control and system information as well as routing and call setup information (a memory for storing information as in **claim 8**). See col. 5, lines 12-16.
- The IP central station 200 connects directly to the public switched telephone network using T1, T3, IP, or ATM networks (Connection point for connecting to the network uses one of packet-based or circuit-switched based technology as in **claim 9**; connecting to the network uses at least one of TDM, ATM, IP, SONET, X.25 and ISDN as in **claim 10**). See fig. 2, and col. 11, lines 60-65.
- The Central router 210 (for directing information as in **claim 11**) and a multimedia server 222 (performs a media format translation function as in **claim 11**). See fig. 2.

Regarding **claim 20**, Kung discloses IP Central Station connecting intelligent peripherals to a network, comprising:

- Voice gateway 232 connects to PSTN 160 (a network interface). See fig. 2, and col. 6, lines 53-57.
- IP central station 200 (a controller) couples with the voice gateway 222 that receives a request from BRG 300 (a network device). The call manager server CM 218 determines and assigns call processing resources, such digit collection and dial tone management (determines an availability of the intelligent peripheral resources and assigns the network device to an intelligent peripheral resource based on the availability). Also see figures 1 and 2.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claims 3 and 4** are rejected under 35 U.S.C. 103(a) as being unpatentable over U. S. Pat. No. 6,728,239 issued to Kung et al (hereinafter Kung) in view of U. S. Pat. Pub. No. 2002/0087665 by Marshall et al (hereinafter Marshall).

Regarding **claim 3**, in addition to disclose the limitations in claim 1, discussed earlier, Kung discloses:

- The gateways support one or more groups of functions including call processing, signaling, billing, maintenance, connection to the network, CoS/QoS parameters selection, and enhanced services (grouping the intelligent peripheral resources into one or more groups). See col. 11, lines 42-46. Furthermore, servers are grouped according to their functions, such as least cost server (LCS) 255, time of day (TOD) server 212, system management (SM) server 216, call manager (CM) server 218, announcement server (AS) 220, multimedia server (MS) 222, and conference server (CS) 224, etc. See fig. 2, and col. 6, lines 31-41. Moreover, The call manager server CM 218 reserves a dial tone generator by returning dial tone message 509 to the broadband resident gateway 300 (the request being received by and assigned to a first group). See fig. 5, and col. 25, lines 32-36.

Art Unit: 2667

However, Kung does not disclose receiving an additional request in the first group for another intelligent peripheral service from a second requesting element, and assigning intelligent peripheral resource of the first group to the second element if such intelligent peripheral resource is available in the first group.

Marshall discloses a deployment tool 510 for checking intelligent peripheral resources assignment and dependency, after receiving requests from different requesting elements to ensure resources dependencies, are satisfied. See fig. 5, and paragraph 76, lines 1-10.

Therefore, it would have been obvious to those having ordinary skill in the art, at the time of invention, to group the intelligent peripheral resources into groups and assign the first request to a first group, receive an additional request in the first group for another intelligent peripheral service from a second requesting element, and assign intelligent peripheral resource of the first group to the second element if such intelligent peripheral resource is available in the first group for a key reason. By grouping resources into groups and checking the resources dependency after receiving requests from different requesting elements, it allows dynamic resources management so that resource entities can be used interchangeably as taught by Marshall. See paragraph 79, lines 1-4.

Regarding **claim 4**, in addition to disclose the limitations in claim 1 discussed earlier, Kung further discloses intelligent peripheral resources are supplied by one or more intelligent peripherals (see fig. 2 gateways and servers). Marshall further discloses identifying step identifying one of the intelligent peripherals that is able to satisfy the request (see fig. 5, deployment tools 510 checks dependency, and paragraph 76, lines 1-

10), and assigning step assigning the identified intelligent peripheral to the request (see fig. 5, resources are deployed to network 516, and paragraph 77, lines 1-4.

7. **Claims 12-17 and 19** are rejected under 35 U.S.C. 103(a) as being unpatentable over U. S. Pat. No. 6,128,379 issued to Smyk in view of U. S. Pat. No. 6,728,239 issued to Kung et al (hereinafter Kung).

Regarding **claim 12**, Smyk discloses a system utilizing intelligent resources comprising a subscriber unit 105 connected to a service switching point switch 106 (one device coupled with at least one first switch) that connects to another service switching point switch 106 through a PSTN 102 (the switch being coupled with at least one other switch through the network). An intelligent peripheral 101 connects to service switching points 106 through the PSTN 102 (at least one intelligent peripheral concentrator coupled with the first switch through the network). See fig. 1, and col. 1, lines 41-46. Although Smyk discloses the intelligent peripheral 101 has different type of capabilities, such as voice recognition. See col. 1, lines 26-32. He does not disclose explicitly at least one intelligent peripheral coupled with the intelligent peripheral concentrator.

Kung discloses the IP central station 200 may include one or more servers, such as call manager server CM 216. See col. 6, lines 31-41.

Therefore, it would have been obvious to those having ordinary skill in the art, at the time of invention, to develop a system having at least one device coupled with at least one first switch that couples to the network, at least one intelligent peripheral concentrator coupled with the first switch through the network, and at least one intelligent peripheral coupled with the intelligent peripheral concentrator for a key reason. By having the intelligent

Art Unit: 2667

peripheral concentrator connects to intelligent peripheral servers that provide specialized features, the system will be scaleable and, therefore, can be deployed in any size company or facility as taught by Kung. See col. 1, lines 56-58.

Regarding **claims 13 and 14**, in addition to disclose the limitations in claim 12 discussed earlier, Smyk further discloses the service logic program residing in SCP 103 controls the interactions between's end users and IP 101 (At least one service control point connected to the switch through the network as in claim 13. The service control point directs telephone calls to the intelligent peripheral concentrator or to another network resource as in claim 14). See fig. 1, and col. 1, lines 33-34.

Regarding **claim 15**, in addition to disclose the limitations in claim 12 discussed earlier, Kung further discloses the IP central station 200 connects directly to the public switched telephone network using T1, T3, IP, or ATM networks (the switch handles media streams in TDM or packetized format). See fig. 2, and col. 11, lines 60-65.

Regarding **claim 16**, in addition to disclose the limitations in claim 12 discussed earlier, Kung further discloses the IP central station 200 contains multimedia server MS 222 that performs media format translation between a packet-based and a circuit based technology, and between different packet-based technologies. See fig. 2, and col. 10, lines 57-61.

Regarding **claim 17**, in addition to disclose the limitations in claim 12 discussed earlier, Kung further discloses the IP central station 200 contains call manager server CM 218 for digit collection and multimedia server MS 222 for voice mail messaging (at least one of digit collection, voice and video playback, announcement playback, voice and

video recording, music recording and playback, collect call processing, forwarding requests and information, pager notification and telephonic alerts). See fig. 2, and col. 25, lines 54-56, and col. 10, lines 57-61.

Regarding **claim 19**, in addition to disclose the limitations in claim 12 discussed earlier, Smyk further discloses subscriber units are conventional telephone lines. See fig. 1. Kung further discloses the IP central station 200 connects directly to the public switched telephone network using T1, T3, IP, or ATM networks (digital transmission facilities). See fig. 2, and col. 11, lines 60-65.

8. **Claim 18** is rejected under 35 U.S.C. 103(a) as being unpatentable over U. S. Pat. No. 6,128,379 issued to Smyk in view of U. S. Pat. No. 6,728,239 issued to Kung et al (hereinafter Kung) in further view of U. S. Pat. Pub. No. 2002/0087665 by Marshall et al (hereinafter Marshall).

Regarding **claim 18**, although Smyk and Kung disclose the limitation in claim 12, they do not disclose the intelligent peripheral concentrator performs a resource allocation function by determining the status and capability of the intelligent peripheral resources and assigning a request to an intelligent peripheral based on the determination.

Marshall discloses a deployment tool 510 for checking intelligent peripheral resources assignment and dependency, after receiving requests from different requesting elements to ensure resources dependencies, are satisfied. See fig. 5, and paragraph 76, lines 1-10. Marshall further discloses identifying step identifying one of the intelligent peripherals that is able to satisfy the request (see fig. 5, deployment tools 510 checks dependency, and paragraph 76, lines 1-10), and assigning step assigning the identified intelligent

peripheral to the request (see fig. 5, resources are deployed to network 516, and paragraph 77, lines 1-4.

Therefore, it would have been obvious to those having ordinary skill in the art, at the time of invention, to have at least one device coupled with at least one first switch, the switch being coupled with at least one other switch through the network, at least one intelligent peripheral concentrator coupled with the first switch through the network, at least one intelligent peripheral coupled with the intelligent peripheral concentrator, and the intelligent peripheral concentrator performs a resource allocation function by determining the status and capability of the intelligent peripheral resources and assigning a request to an intelligent peripheral based on the determination for a key reason. Since the intelligent peripheral concentrator connects to the devices and the peripheral resources, and performs resources allocation function, it allows dynamic resources management so that resource entities can be used interchangeably as taught by Marshall. See paragraph 79, lines 1-4.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel K. Lam whose telephone number is (703) 305-8605. The examiner can normally be reached on Monday-Friday from 8:30 AM to 4:30 PM.

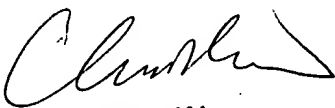
If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on (703) 305-4378. The fax phone number for this Group is (703) 872-9314.

Art Unit: 2667

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-4700.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status Information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DKL *dkl*
July 15, 2004


CHI PHAM
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600 7/20/04